

# **INFORMATION TECHNOLOGY**

## **SALARY ASSESSMENT PROJECT**



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**SOUTH CAROLINA BUDGET AND CONTROL BOARD**  
**DIVISION OF THE STATE CHIEF INFORMATION OFFICER**

## Table of Contents

1. Executive Summary.....	3
2. Project Description .....	5
3. Project Team .....	6
4. IT Job Classifications .....	6
5. Methods of Attracting and Retaining IT Employees .....	8
6. Principles for Designing Effective Career Paths .....	13
7. SC IT Salary Comparisons .....	15
8. State Temporary IT Contract Costs .....	21
9. Agency Specific Issues .....	24
10. Recommendations .....	24
<i>Appendix 1 – Newly Created Job Classifications .....</i>	<i>25</i>
<i>Appendix 2 – New Job Classifications Recommended .....</i>	<i>32</i>
<i>Appendix 3 – State Salary Survey Information .....</i>	<i>35</i>
<i>Appendix 4 – Private Sector Companies Surveyed by the HayGroup .....</i>	<i>44</i>

## 1. Executive Summary

In March 2006, several State Agency Information Technology (IT) Directors communicated to the State CIO, Dr. Jim Bryant, that they have encountered difficulty in hiring and retaining IT staff for high demand IT skill sets. Dr. Bryant initiated the Information Technology Salary Assessment Project (ITSAP) to respond to this issue. The ITSAP Project Team included representatives from the Budget and Control Board's Office of Human Resources and Higher Education, as well as large and small state agencies with diverse missions. The Project Team has concluded its work and has made a number of recommendations that are documented in this report.

This report contains: 1) recommendations for several new IT job classifications; 2) methods of attracting and retaining employees; 3) principles for establishing employee career paths; 4) a comparison of SC IT salaries to southeastern government and private industry salaries; and 5) information pertaining to the use and cost of the SC State Temporary IT Contract. A summary of this information is provided below.

- ? The Project Team **recommended the creation of new IT job classifications for Senior Software Engineers, and Senior Data Base Administrators**. During the summer of 2006, four Project Management job classes and an Information Technology Systems Architect were created. These seven job classes should ease the difficulty in hiring technical staff needed in SC government.
- ? The turnover rate for IT positions in SC government has risen steadily since 2002. The Project Team **identified a number of methods of attracting and retaining employees** with hard to find skill sets. These methods include: 1) providing flexible working options; 2) providing equipment such as laptops with high speed data connections to facilitate working from home; 3) promoting employee camaraderie, 4) facilitating career paths through training; 5) providing employees with opportunities to work on exciting projects; and 6) adopting the use of monetary incentives.
- ? The Project Team worked together to **establish guidelines to aid agencies in the establishment of employee career paths**. The Team recommended that career paths be developed at the agency level and matched to agency budgets. Agencies should be able to commit to encouraging and honoring career paths as quickly as the constraints associated with budgets and needs for various skills and levels will allow.
- ? The Budget and Control Board's Office of Human Resources (OHR) conducted a **study of IT salaries in SC state government as compared to salaries in southeastern state governments and private industry**.

The resulting report indicated that, based on the need for South Carolina to compete within both the public and private sectors for IT talent, a blend of both private and public sector markets would offer the most appropriate comparison for South Carolina IT jobs. SC IT Salaries range from 3.45% to 19.24% behind these blended salaries in all categories except one, which is 0.64% higher. Agencies should use this data as a reference in their decisions regarding pay practices for current and future IT employees.

- ? The Project Team also obtained information from the State IT Procurement Office concerning the use of the SC State Temporary IT Contract to hire technical resources from private industry for SC government projects. The average hourly rate for these employees is \$72 per hour, which equates to \$149,760 per year. State benefits are normally computed at approximately 30% of salary, which means that a state employee would have to earn a salary of \$ 115,200 to equal the average temporary contract rate. Since this amount is far more than SC government salaries for these positions, it is clearly in the best interest of the state to take steps to recruit and retain IT state employees. The total cost of temporary private industry employees used between October 2005 and September 2006 was \$12,222,973.

To provide data processing services to SC government in the most efficient manner possible, State Agency IT Directors need the support of State Agency Executive Managers to move forward in the following areas.

- 1) Utilize the Band 07, 08, and 09 classifications where needed to hire qualified staff at salaries necessary to attract highly skilled employees.
- 2) Adopt the ITSAP Project Team's recommendation to use a blend of both government and private sector salaries as the most appropriate representation of the competitive market for State IT positions.
- 3) Build and fund a professional development plan for IT employees with appropriate career paths defined.
- 4) Implement the strategies identified to help attract and retain IT staff. This would enable the State to avoid some of the expensive costs associated with employee turnover.
- 5) Provide IT Directors with adequate FTEs to staff IT projects. This action would allow IT Directors to use the most appropriate method of acquiring IT resources, which would hold down the cost of more expensive private contract employees.

## 2. Project Description

In March 2006, several State Agency IT Directors communicated to the State CIO, Dr. Jim Bryant, that they have encountered difficulty in hiring and retaining IT staff for high demand IT skill sets. Dr. Bryant initiated the Information Technology Salary Assessment Project, ITSAP, to respond to this issue. The issues that were brought to his attention are listed below.

- 1) Some IT Directors are not able to offer the salaries necessary to hire staff as state employees to support specific technologies. Therefore, they have been forced to outsource work to private vendors at a higher cost than the State would have incurred if it had been possible to hire state employees. **The first goal of the project was to identify areas where different IT job classifications are needed.**
- 2) Many agencies' IT staffs have a high percentage of employees who are able to retire immediately or in the next few years. This is a particularly difficult problem where mainframe programmers are involved since this skill set is becoming increasingly difficult to find. **The second goal of the project was to identify methods of attracting and retaining employees with hard to find skill sets.**
- 3) SC IT leaders recommend that career paths be defined for IT professionals with appropriate salary levels identified. **The third goal of the project was to recommend principles to guide agencies in designing career paths for IT employees.**
- 4) SC IT leaders are concerned that state IT salaries may not be in line with the salaries of comparable organizations. **The fourth goal of the project was to produce a report comparing IT salaries in SC state government to salaries of both public sector and private sector IT employees in southeastern states.**

This project is a component of Section 3.5.1 of the State Information Technology Strategic Plan which states:

*In FY 2006, the State CIO and Office of Human Resources (OHR) will convene a workgroup of state agency executives, human resource directors, and representatives of the State's IT community to examine the structure of the information technology classifications and review state employment data such as the number of employees approaching retirement, turnover rates, programs that are growing or diminishing in importance, employee skill gaps, and areas that are being affected by technology change to formulate strategies for effective workforce succession planning. The workgroup will issue a report to the State CIO and OHR with recommendations, including any proposed new classifications or modifications to existing classifications.*

### 3. Project Team

The ITSAP Project Team is identified below. The team included representatives from the Office of Human Resources and Higher Education, as well as large and small state agencies with diverse missions. The team met regularly between April and November of 2006.

- 1) Jim Bryant, Division of the State Chief Information Officer (CIO)
- 2) Chris Byrd, Office of Human Resources (OHR)
- 3) Mike Garon, Department of Revenue
- 4) Jerry Brown, Department of Labor, Licensing, and Regulation
- 5) Dr. Bob Cape, College of Charleston
- 6) Patricia Stephens, Department of Social Services
- 7) Barbara Teusink, Division of the State Chief Information Officer
- 8) Beverly Cummings, Division of the State Chief Information Officer
- 9) Nan Bass, Division of the State Chief Information Officer
- 10) Doug Drenning, Division of the State Chief Information Officer

### 4. IT Job Classifications

OHR created the following new job classes in 2006. These positions will be helpful in meeting some of the IT needs identified by the ITSAP Project Team. A detailed description of each of these positions is provided in **Appendix One**.

Class	Position	Band	Minimum	Midpoint	Maximum
AJ47	Information Technology Systems Architect	08	\$ 52,428	\$ 74,713	\$ 96,999
AK03	Project Coordinator	06	\$ 35,414	\$ 50,467	\$ 65,521
AK04	Project Manager I	07	\$ 43,090	\$ 61,404	\$ 79,718
AK05	Project Manager II	08	\$ 52,428	\$ 74,713	\$ 96,999
AK06	Director of Project Management	09	\$ 63,790	\$ 90,905	\$118,202

The Project Team agreed that several additional new job classifications are needed to enable the hiring of senior level software engineers and database administrators. These positions were identified as extremely difficult to fill with the classifications currently available. The new job classifications needed are listed below. A detailed description of each of these positions is provided in **Appendix Two**. The salary information gathered by OHR from a number of southeastern states supports the need to classify these positions at a Band 08, which will allow salaries required to attract qualified candidates. The **SC IT Salary Comparison** conducted by OHR is documented in Section 7 of this report.

Class	Position	Band	Minimum	Midpoint	Maximum
	Senior Software Engineer	08	\$ 52,428	\$ 74,713	\$ 96,999
	Senior Database Administrator	08	\$ 52,428	\$ 74,713	\$ 96,999

The Project Team also reported that artificially high training and experience requirements have resulted in the rejection of applicants who are actually well qualified for positions. To eliminate this issue and make the hiring process easier, some modification to training and experience requirements are recommended and have been documented in the table below.

### **Recommended Minimum Training and Experience Requirements**

AJ01	<a href="#">Computer Programmer I</a> A high school diploma and work experience in a related field. An associate degree in a related field may be substituted for the required work experience.	04
AJ03	<a href="#">Computer Programmer II</a> A high school diploma and work experience in computer programming. An associate degree in a related field may be substituted for the required work experience.	05
AJ05	<a href="#">Applications Analyst I</a> A high school diploma and work experience in computer programming or computer system development and modification. A bachelor's degree in a related field may be substituted for the required work experience.	05
AJ08	<a href="#">Senior Applications Analyst</a> A bachelor's degree in a related field and experience in computer system development and modification. Related experience may be substituted for the bachelor's degree.	07
AJ10	<a href="#">Information Technology Manager I</a> A bachelor's degree in a related field and experience in a technology field. Technology experience may be substituted for the bachelor's degree.	07
AJ12	<a href="#">Information Technology Manager II</a> A bachelor's degree in a related field and experience in a technology field.	08

	Technology experience may be substituted for the bachelor's degree.	
AJ20	<a href="#">Systems Support Technician</a> A high school diploma and work experience in a related field or an associate degree in a related field.	05
AJ45	<a href="#">Information Resource Consultant II</a> A bachelor's degree and experience in automated information or communication system design, installation, operation, repair, sales or marketing. Related experience may be substituted for the bachelor's degree.	06
AJ46	<a href="#">Senior Information Resource Consultant</a> A bachelor's degree and experience in automated information or communication system design, installation, operation, repair, sales or marketing. Related experience may be substituted for the bachelor's degree.	07
AJ48	<a href="#">Operations Manager I</a> A high school diploma and work experience in computer operations or a related field.	05
AJ50	<a href="#">Operations Manager II</a> A high school diploma and work experience in computer operations or a related field.	06
AJ53	<a href="#">Operations Manager III</a> A high school diploma and work experience in computer operations management.	07
AJ60	<a href="#">Data Base Specialist</a> A high school diploma and work experience in a related field or an associate degree in a related field.	05
AJ63	<a href="#">Data Base Administrator I</a> A high school diploma and work experience in systems development and maintenance, technical support, or the support of database management systems; or a bachelors degree in a related field.	06
AJ65	<a href="#">Data Base Administrator II</a> A high school diploma and work experience in systems development and maintenance, technical support, or the support of database management systems; a bachelors degree may substitute for a portion of the required work experience.	07

## 5. Methods of Attracting and Retaining Employees

The information below pertains to IT employee turnover and was provided by OHR.

### **IT Employee Turnover - Provided by OHR**

Evaluating turnover of employees is an important consideration when exploring ways to enhance recruiting and retention efforts. While the State of South Carolina appears to have had some success in retaining IT employees, agencies experienced a significant increase in turnover of IT classifications between the 2004-2005 fiscal year and the



2005-2006 fiscal year. The table below outlines the growth in IT turnover, as well as a comparison to statewide turnover for the same time period.

### **Comparison – IT Turnover for All Positions**

Table 1

Statewide Turnover %	Turnover Percentage FY 2004-2005	Turnover Percentage FY 2005-2006
All Positions	12.6%	15.5%
IT Positions	7%	13%

A closer look helps identify the specific areas within IT where turnover is most prevalent. The information below indicates that the most significant turnover is occurring at the lower levels of IT jobs, specifically in the Computer Programmer and Data Entry areas. At the higher levels, turnover among Operations Managers was highest.

### **IT Turnover for Select Occupational Areas**

Table 2

<b>Series</b>	<b>Turnover Percentage FY 2004-2005</b>	<b>Turnover Percentage FY 2005-2006</b>
Computer Programmer	5%	21%
Applications Analyst	6%	10%
Information Technology Manager	5%	12%
Data Coordinator	6%	13%
Systems Programmer	3%	9%
Computer Operator	10%	13%
Information Resources Consulting	8%	14%
Operations Manager	10%	18%
Data Base	12%	14%

A review of the reasons for turnover can also provide insight to help an organization improve its retention efforts. The following table outlines the reported reasons for turnover among former IT employees during the last two fiscal years.

## Reported Reasons for Turnover - IT Positions

Table 3

<b>Separation Reason</b>	<b>Percentage of Turnover FY 2004-2005</b>	<b>Percentage of Turnover FY 2005-2006</b>
Employed Outside State Government	26.98%	17.14%
Full Retirement	20.63%	30.00%
Personal Reasons	20.11%	26.00%
Different Job/Different State Agency	12.17%	9.43%
Moved Out of Job Area	6.35%	6.57%
Misconduct	3.17%	2.57%
Reduction In Force	2.12%	0.00%
Substandard Performance	2.12%	1.14%
Returned to School	1.06%	0.86%
Military Service	1.06%	0.00%
Early Retirement	1.06%	0.86%
Disability Retirement	1.06%	2.29%
Deceased	1.06%	1.43%
Probationary Job Eliminated	0.53%	0.00%

It is noteworthy that the most significant reasons for turnover are Employed Outside State Government, Full Retirement, and Personal Reasons.

- ? Full retirements account for over 20% of separations in fiscal year 2004-2005 and 30% of separations in fiscal year 2005-2006.
- ? Almost twenty-seven percent of the IT separations were due to employees becoming employed outside of state government in fiscal year 2004-2005 as compared to the seventeen percent that left for this reason in fiscal year 2005-2006.
- ? Statewide, seventeen percent of separations in fiscal year 2004-2005 and thirteen percent of separations in fiscal year 2005-2006 were due to becoming employed outside of state government.

### **% of Turnover – Accepting Job Outside State Govt.**

<b>Series</b>	<b>2004-2005</b>	<b>2005-2006</b>
All Positions	17%	13%
IT Positions	27%	17%

Of the turnover that occurs, IT employees are more likely than employees as a whole to leave to accept another job outside state government.

### **% of Turnover – Full Retirement**

<b>Series</b>	<b>2004-2005</b>	<b>2005-2006</b>
All Positions	13%	28%
IT Positions	20%	30%

### **% of Turnover – Personal Reasons**

<b>Series</b>	<b>2004-2005</b>	<b>2005-2006</b>
All Positions	31%	28%
IT Positions	20%	26%

To put these figures in context, the following compares turnover of IT employees in SC to national statistics. The Bureau of Labor statistics reports the following separation percentages for state and local government employees:

- ? Calendar Year 2004 = 15.3%
- ? Calendar Year 2005 = 14.7%
- ? Calendar Year 2006 (January – August only) = 11.2%

The Bureau of Labor statistics reported the following separation percentages for the information industry:

- ? Calendar Year 2004 = 29.7%
- ? Calendar Year 2005 = 29.3%
- ? Calendar Year 2006 (January – August only) = 20.8%

In comparison with this information, South Carolina has less turnover within the IT classifications than the national average for the information industry. While the turnover rate for these classifications increased to thirteen percent for the 2005-2006 fiscal year, it is still less than the national average of fourteen percent for state and local government and substantially less than the twenty-nine percent for the information industry during the 2005 calendar year.

## **ITSAP Project Team Recommendation**

The Project Team agreed that it would be in the best interest of government to take a proactive approach to increasing IT employee retention in SC government. Supporting reasons are: 1) difficulty in recruiting qualified new employees; 2) high cost of retraining IT staff; 3) high turnover increases the already difficult task of cross-training staff to provide contingency planning; and 4) high costs of alternative private contract resources.

The Gartner Group and the Saratoga Institute both concur that the cost of replacing an employee ranges from 150% to 250% of the employee's salary. This takes in to account the costs of employee training, lost momentum, other employees picking up the work load, managers' interviewing time, interview expenses, differential between departing employee's salary and that of the new employee (15% – 35% higher), and the learning curve of the new employee (50 percent loss of productivity for three to six months). Increasing employee retention will aid in mitigating these costs.

The Team identified a number of methods of attracting and retaining IT employees, which are listed below. All methods are allowable under current state rules and most are already in use at various agencies. The Team observed that the use of "At Will" positions for top level IT jobs was a potential deterrent for some candidates.

- 1) Flexible Working Options: flexible work schedules; telecommuting.
- 2) Equipment: provide laptops and high speed connections to facilitate working from home.
- 3) Promote Camaraderie: Employee Appreciation Day; holiday parties; peer recognition; events including both Program Area and IT Staff.
- 4) Career paths facilitated by education/training, and made possible by opportunities for promotion and advancement.
- 5) Provide employees with opportunities to work on projects that excite them.
- 6) Monetary Incentives: referral bonuses; bonuses paid after six months of employment; bonuses for achievement; annual salary increases set by supervisors at the time of the EPMS review. (Regular salary increases associated with EPMS reviews would advance salaries for the highest performers and help correct problems where IT salaries are too low.)

## **6. Principles for Designing Effective Career Paths**

The Project Team concurred that career paths are important for developing and maintaining an effective government IT work force. Potential benefits, general principles, administrative issues, and other career path considerations in the use of career paths for IT employees documented below.

### **Potential Benefits of Developing Career Paths for IT Staff**

- 1) Effective Management
  - a) Employee and employer expectations will be better defined.
  - b) Supervisors are forced to become more heavily involved in their employees' career development.
  - c) Employees will be given incentives for further developing the knowledge and skills that the agency needs to meet its organizational goals.
- 2) Return on Investment
  - a) Discretionary funds for salary increases will be targeted to reward those employees who become more valuable to the organization.
- 3) Workforce Planning
  - a) Management can more systematically prepare for future needs of the workforce.
  - b) Through career incentives, the organization can develop a more knowledgeable, better-trained workforce.
- 4) Recruiting
  - a) A well-designed career path will enable an employee to envision their potential for a long-term career with the organization. Career paths enable an employer to recruit new employees to a "career" rather than just a "job."
  - b) Existence of a career path will potentially distinguish an organization from other organizations with whom it is competing.
- 5) Retention
  - a) Employees will develop more loyalty to the organization if they believe the organization is committed to and has plans for their career advancement.
  - b) Increased retention leads to more stability in the work place and enhanced ability for IT to support the needs of the organization.

### **General Principles**

- 1) The decision to implement structured career paths should be supported by the agency director and other members of top management in the organization.
- 2) Career paths should support the strategic goals of the organization, as well as employees' needs for career advancement.
- 3) A well-designed career path will reward employees as they become more valuable to the organization. This will typically include gaining knowledge, skills, or abilities or assuming higher levels of responsibility. Career paths should not simply reward longevity with the organization.

- 4) A well-designed career path will provide employees a sufficient incentive to further develop their knowledge, skills, and abilities, or assume higher levels of responsibility.
- 5) Career paths for IT employees should allow employees to be rewarded for development of technical skills as well as managerial skills.
- 6) Employees should be encouraged to maximize their ability to move through a career path. Employees also have a responsibility to prepare themselves for entry level positions in another career path in which they are interested.
- 7) The agency should determine the pace at which employees can move through the career path. (This is an important means for controlling costs.) The agency should also keep employees informed of any changes in the pace at which they can be rewarded.
- 8) Salaries at the entry level of a career path should allow an agency to compete for talent in its particular market. Salary advancement should occur at a pace that allows salaries to closely correlate with employees' growing value to the organization and to maintain market competitiveness.
- 9) The agency should ensure that employees have the opportunities to develop the required knowledge or skills (e.g., training, developmental work assignments) for movement through the career path.
- 10) Career path advancement should be part of an agency's overall compensation strategy for attracting and retaining talent.
- 11) Establishing career paths can be labor intensive in the initial design; however, they can yield great benefits over the long-term.

### **Career Path Administration**

- 1) Before implementing structured career paths, agencies should identify the financial commitment needed to support the career path and ensure, to the degree possible, the organization can support it on an on-going basis.
- 2) Long-term funding for career paths should be identified in an agency's strategic and budget plans.
- 3) Mechanisms for rewarding employees may include salary increases for reclassifications and promotions, as well as in-band increases for performance, additional duties, and additional skills. Some career path plans may also include the use of bonuses for rewarding specific accomplishments of employees.
- 4) Effective management of career paths requires managers and supervisors to talk regularly with their employees about their individual interests and career plans, as well as the needs of the agency (especially in the area relevant to the employee's career).

## **Other Career Path and Pay Considerations**

- 1) Agencies are able to commit to encouraging and honoring career paths as quickly as the constraints associated with budgets and needs for various skills and levels will allow.
- 2) Career paths should be developed at the agency level and managed within an agency's budget.
- 3) Promotions and reclassifications can be used for rewarding employees for natural evolutionary steps in their careers.
- 4) Agencies can award bonuses of up to \$2000 per year. Managers should also recognize that employees may resent bonuses when they are used instead of a justified permanent salary increase.
- 5) Agencies have the flexibility to provide temporary salary increases for temporary increases in job duties.
- 6) In most cases, technical employees do not need to become managers to have improved salaries.

## **7. SC IT Salary Comparisons**

The fourth goal of the SC IT Salary Comparison was to compare current IT salaries in SC government to southeastern government and private industry salaries. This salary comparison was conducted by OHR and is provided below.

### **Salary Analysis Provided by OHR**

#### **2006 IT PROFESSIONAL SALARY SURVEY**

##### **PURPOSE**

At the direction of the ITSAP Project Team, OHR conducted a salary survey in order to identify the most appropriate market for South Carolina IT positions and to determine whether the salaries of certain IT positions within state government are competitive with other public and private sector organizations. This information can form the basis for key compensation decisions that may affect an agency's ability to remain competitive for IT positions.

##### **SCOPE AND METHODOLOGY**

OHR conducted a written salary survey to determine if the salaries of nine existing information technology (IT) classifications within South Carolina government are competitive with those of other southeastern states. The survey also included seven additional IT classifications the project team identified as gaps in the currently existing IT job classifications. These positions were included in the survey in order to gauge whether the additional classifications are prevalent in other southeastern states and identify an appropriate salary range for the proposed classifications. The survey asked for detailed information about each benchmark position such as average salary, number of incumbents, degree of match, and salary range.

A copy of the survey questionnaire, benchmark position descriptions, and a list of survey participants is located in **Appendix 3**. Prior to sending the survey to participants, the project team reviewed the benchmark position descriptions to ensure accuracy. Surveys were then e-mailed to HR representatives in 13 southeastern states. Eleven states completed and returned the surveys, representing an 85% response rate. The data submitted by each state were reviewed to ensure the accuracy of job matches. Questionable matches were discussed with participants and differences were reconciled or excluded based on industry standards before reporting.

**Since SC government also competes with the private sector for IT positions, market pricing information was obtained from The HayGroup for the same benchmark positions established in the survey of the 13 southeastern states. This information was reported by The HayGroup from their database of 175 clients representing the same geographical region. A complete listing of the 175 companies represented including a summary of their respective industry, revenue and number of employees is included in Appendix 4.**

## **FINDINGS**

### **Public Sector Data Analysis**

The first step in analyzing the survey results was to compare the SC average salaries to comparable positions in other states. SC IT salaries range from 11.54% above to 9.31% below the southeastern average. The greatest discrepancies existed between the Applications Analyst I, Information Technology Director, and Senior Information Technology Director positions with the differences being 9.31%, 1.83%, and 0.14%, respectively. SC average salaries for these classifications appear to be lower than the salary of comparable classifications in other southeastern states. In other areas, such as the Agency Chief Information Officer, advanced level Applications Analysts, and Programmer, SC average salaries are higher than comparable positions in the southeastern states. (See Table 1 below for individual comparisons.)

Since South Carolina uses a more general classification for its Network Administrator and Network Support Technician positions, the team was unable to identify the South Carolina average salary for these positions. In addition, the SC average salaries for Agency Chief Information Officer, Senior Information Technology Director, and Information Technology Director are for the positions providing comparable functions in state agencies. In the case of the Agency Chief Information Officer, the average salary includes some positions in the Program Manager III class (Band 9), as well as certain unclassified positions working at this level.



**Table 1: Public Sector Summary - Southeastern States Comparisons**

South Carolina Job Title	Class Code	Band	SC AVG	SE AVG	Diff SC AVG & SE AVG
Agency Chief Information Officer	AJ14	09	\$105,202	\$94,321	11.54%
Senior Information Technology Director	AJ12	08	\$86,369	\$86,492	-0.14%
Information Technology Director	AJ10	07	\$69,937	\$71,244	-1.83%
Senior Applications Analyst	AJ08	07	\$63,547	\$61,491	3.34%
Applications Analyst II	AJ07	06	\$50,690	\$48,865	3.74%
Applications Analyst I	AJ05	05	\$38,705	\$42,680	-9.31%
Programmer	AJ03	05	\$36,824	\$35,913	2.54%
Network Administrator	AJ45	06	**	\$55,486	N/A
Network Support Technician	AJ42	05	**	\$44,701	N/A
<b>Additional Positions Surveyed</b>					
IT Manager – Applications	TBD	08	N/A	\$73,776	N/A
IT Manager – Operations	TBD	08	N/A	\$68,899	N/A
IT Manager – Systems	TBD	08	N/A	\$68,603	N/A
IT Project Manager	AK04	07	N/A	\$61,129	N/A
Senior Database Administrator	TBD	08	N/A	\$74,484	N/A
Senior Software Engineer	TBD	08	N/A	\$67,583	N/A
Web Design Engineer	TBD	TBD	N/A	*	N/A

\* Insufficient data

\*\* Unable to determine

When analyzing the pay ranges for each classification, SC ranges were approximately 10% below the southeastern average. This differential may be attributed to the broadbanding pay system used in SC government, where there are fewer and broader pay ranges with less overlap between each. Since all of the other southeastern states do not use the same broadbanding pay system, the ranges may be driven higher by other states that use more pay grades. (See Table 2 below for specific comparisons.)

**Table 2: SC & SE Range Comparisons**

South Carolina Range				Southeastern States Range			Difference SC & SE Ranges		
Class Code	SC Min	SC Mid	SC Max	SE AVG Min	SE AVG Mid	SE AVG Max	Diff SC & SE Min	Diff SC & SE Mid	Diff SC & SE Max
AJ14	\$63,790	\$90,905	\$118,020	\$64,429	\$98,240	\$136,037	-0.99%	-7.47%	-13.24%
AJ12	\$52,428	\$74,713	\$96,999	\$58,256	\$82,421	\$101,491	-10.00%	-9.35%	-4.43%
AJ10	\$43,090	\$61,404	\$79,718	\$51,638	\$74,832	\$97,350	-16.55%	-17.94%	-18.11%
AJ08	\$43,090	\$61,404	\$79,718	\$43,322	\$60,795	\$75,298	-0.53%	1.00%	5.87%
AJ07	\$35,414	\$50,467	\$65,521	\$37,321	\$53,908	\$68,156	-5.11%	-6.38%	-3.87%
AJ05	\$29,102	\$41,474	\$53,846	\$34,377	\$52,326	\$62,046	-15.34%	-20.74%	-13.22%
AJ03	\$29,102	\$41,474	\$53,846	\$29,727	\$42,692	\$59,329	-2.10%	-2.85%	-9.24%
AJ45	\$35,414	\$50,467	\$65,521	\$42,758	\$58,973	\$74,453	-17.18%	-14.42%	-12.00%
AJ42	\$29,102	\$41,474	\$53,846	\$33,715	\$47,425	\$64,170	-13.68%	-12.55%	-16.09%
AVG	\$40,059	\$57,087	\$74,115	\$43,949	\$63,512	\$82,037	-8.85%	-10.12%	-9.66%

***In summary, it appears that South Carolina IT salaries are generally competitive with comparable jobs in the southeastern states and the salary ranges for SC jobs are slightly behind those of comparable public sector jobs in the region.***

### **Private Sector Data Analysis**

The Hay Group assisted the ITSAP Project Team in identifying salary comparisons for private sector jobs in the southeastern states. **The market data provided by The Hay Group represents the tenth percentile (P10), where ten percent of the average salaries are lower and ninety percent of the average salaries are higher. The tenth percentile of the market data was used for comparison based on precedent established when pricing top executive positions within SC government.**

Historically, other executive positions within SC government have been evaluated and priced by blending the public (southeastern average) and private sector data (P10) together with equal weight in order to identify the most appropriate market for these jobs. By incorporating private sector data into the definition of the market for these jobs, key positions are able to be priced more competitively with the market.

In general, the average salaries reported in the private sector were noticeably higher than both the SC average salaries and the average of public sector jobs in the southeast. In some cases, there was a market premium in the private sector as much as 40%.

SC was most competitive with the private sector in Senior Applications Analyst and Programmer positions, lagging behind at 1.92% and 8.78%, respectively. SC was least competitive with the private sector with Agency Chief Information Officer, Senior Information Technology Director, Information Technology Director, Applications Analyst II, and Applications Analyst I positions. (See Table 3 below for individual comparisons.)

Looking at general trends when comparing both private sector and public sector data, SC average salaries most significantly lag behind the market for Senior Information Technology Director, Information Technology Director, and Applications Analyst I positions. While the average salaries of SC Agency Chief Information Officer positions lag behind the private sector, it is ahead of the public sector.

**Table 3: Summary – Public & Private Sector Comparisons**

	SC Data	Public Sector Data		Private Sector Data	
South Carolina Job Title	SC AVG	SE AVG	Diff SC AVG & SE AVG	P10	Diff SC AVG & P10
Agency Chief Information Officer	\$105,202	\$94,321	11.54%	\$159,287	-33.95%
Senior Information Technology Director	\$86,369	\$86,492	-0.14%	\$101,955	-15.29%
Information Technology Director	\$69,937	\$71,244	-1.83%	\$101,955	-31.40%
Senior Applications Analyst	\$63,547	\$61,491	3.34%	\$64,792	-1.92%
Applications Analyst II	\$50,690	\$48,865	3.74%	\$58,945	-14.00%
Applications Analyst I	\$38,705	\$42,680	-9.31%	\$45,844	-15.57%
Programmer	\$36,824	\$35,913	2.54%	\$40,369	-8.78%
Network Administrator	**	\$55,486	N/A	\$54,398	N/A
Network Support Technician	**	\$44,701	N/A	\$52,209	N/A
<b>Additional Positions Surveyed</b>					
IT Manager - Applications	N/A	\$73,776	N/A	\$105,552	N/A
IT Manager - Operations	N/A	\$68,899	N/A	*	N/A
IT Manager - Systems	N/A	\$68,603	N/A	\$107,604	N/A
IT Project Manager	N/A	\$61,129	N/A	\$67,391	N/A
Senior Database Administrator	N/A	\$74,484	N/A	\$63,267	N/A
Senior Software Engineer	N/A	\$67,583	N/A	\$82,703	N/A
Web Design Engineer	N/A	\$50,516	N/A	*	N/A

\* Insufficient Data      \*\* Unable to determine

\*\*\* The Private Sector Data P10 column represents the 10th percentile of salaries (ten percent of the average salaries are lower and ninety percent of the average salaries are higher) reported by the private sector organization included in the survey.

In summary, it appears that South Carolina IT salaries are significantly behind comparable private sector jobs in the southeastern states.

## RECOMMENDATIONS

***Based on the need for South Carolina to compete within both the public and private sectors for IT talent, the ITSAP Project Team recommends considering a blend of both markets as the most appropriate comparison for South Carolina IT jobs. The chart below provides a comparison between select South Carolina IT positions and “the market” for those jobs. Agencies may use this data to inform their decisions regarding pay practices for current and future IT employees.***

**Table 4: Blended Data**

	SC Data	Public Sector	Private Sector	Blended Data (50/50)	
South Carolina Job Title	SC AVG	SE AVG	P10	AVG SE AVG and P10	Diff SC AVG & Blend
Agency Chief Information Officer	\$105,202	\$94,321	\$159,287	\$126,804	-17.04%
Senior Information Technology Director	\$86,369	\$86,492	\$101,955	\$103,956	-8.34%
Information Technology Director	\$69,937	\$71,244	\$101,955	\$95,972	-19.24%
Senior Applications Analyst	\$63,547	\$61,491	\$64,792	\$63,141	0.64%
Applications Analyst II	\$50,690	\$48,865	\$58,945	\$53,905	-5.96%
Applications Analyst I	\$38,705	\$42,680	\$45,844	\$44,262	-12.55%
Programmer	\$36,824	\$35,913	\$40,369	\$38,141	-3.45%
Network Administrator	**	\$55,486	\$54,398	\$54,942	N/A
Network Support Technician	**	\$44,701	\$52,209	\$48,455	N/A
<b>Additional Positions Surveyed</b>					
IT Manager - Applications	N/A	\$73,776	\$105,552	\$89,664	N/A
IT Manager - Operations	N/A	\$68,899	*	N/A	N/A
IT Manager - Systems	N/A	\$68,603	\$107,604	\$88,104	N/A
IT Project Manager	N/A	\$61,129	\$67,391	\$64,260	N/A
Senior Database Administrator	N/A	\$74,484	\$63,267	\$68,875	N/A
Senior Software Engineer	N/A	\$67,583	\$82,703	\$75,143	N/A
Web Design Engineer	N/A	\$50,516	*	N/A	N/A

\* Insufficient Data      \*\* Unable to determine

\*\*\* The Private Sector Data P10 column represents the 10th percentile of salaries (ten percent of the average salaries are lower and ninety percent of the average salaries are higher) reported by the private sector organization included in the survey.

To address the gaps in the current existing IT job classifications proposed by the project team, several new classifications will be implemented. After reviewing the data for the additions positions surveyed, the following conclusions were drawn:

- 1) **IT Manager – Applications, IT Manager – Operations, IT Manager – Systems** – After reviewing the data collected in the salary survey, it was determined that a new classification does not need to be created for these positions. These positions fall into the existing classification of IT Manager I (AJ10) or IT Manager II (AJ12).
- 2) **IT Project Manager** – Four new classifications were created in August 2006 to close the gap for project managers within state government. The creation of the Project Manager series will not only create a new career path within state government, but will also enable SC to remain competitive with other states.
- 3) **Senior Database Administrator** – Upon review of this information, the market data appears to support the creation of a Senior Database Administrator classification at the Band 08 level.

- 4) **Information Technology Systems Architect** – A new Information Technology Systems Architect (AJ47) classification has been created. This position enables the hiring of high-level computer architects, which are greatly needed in government IT.
- 5) **Senior Software Engineer** – Upon review of this information, the market data appears to support the creation of a Senior Software Engineer classification at the Band 08 level.
- 6) **Web Design Engineer** – There was a very low response rate for this position in both the public and private sectors and the strength of the matches for this position in other states were weaker than the benchmark position. There were also very few incumbents reported in this position. After reviewing the survey findings with the project team, it was determined that there is presently not enough market data to support the creation of this new classification.

## 8. State Temporary IT Contract

The State Temporary IT Contract is used by many government entities to hire technical resources. The table below shows the number of each type of position hired through this contract between October 2005 and September 2006 and the average hourly rate of those positions. These numbers do not include private industry resources hired through Request for Procurements (RFPs), sole sources, or any other hiring mechanisms other than the State Temporary IT Contract.

Position Name	Number Hired	Average Hourly Rate
Business Analyst	47	\$ 74.13
Client Technologies Technician	44	\$ 34.25
Data Architect	102	\$ 109.99
Data Base Administrators	15	\$ 67.33
Internet Web Engineer	6	\$ 65.00
Network Administrator	8	\$ 52.38
Network Engineer (Extension)	19	\$ 66.32
Network Technician	16	\$ 30.75
Project Management - Minor	7	\$ 96.43
Project Management - Small	22	\$ 108.18
SAP - BASIS Consultant	1	\$ 95.00
SAP - Functional Consultant	2	\$ 112.50
Security Analyst	22	\$ 82.77
System Software Programmers	53	\$ 77.70
System/Applications Analyst	198	\$ 71.12
Technical Trainers	5	\$ 43.50
Web Designer	25	\$ 37.12
<b>Total</b>	<b>592</b>	<b>\$ 72.03</b>

The State Temporary IT Contract does provide the optimal means of acquiring resources for some types of temporary, specialized IT needs. The costs of acquiring resources through this contract are significantly higher than the costs of using state

employees to do the work. The average hourly rate of \$72 per hour (see above chart) equates to \$149,760 per year. State benefits are normally computed at approximately 30% of salary, which means that a state employee would have to earn a salary of \$ 115,200 ( $\$115,200 * 1.30 = \$149,760$ ) to equal the average temporary contract rate. Since this amount is far more than SC government salaries for these positions, it would clearly be in the best interest of the State to take steps to recruit and retain IT state employees.

The goal of the ITSAP Project Team is to ensure that resources are obtained in the most cost efficient manner. In some cases, State IT Directors have had no choice but to use the State Temporary IT Contract because they have been unable to hire state employees to do the work due to a lack of availability of an adequate number of FTEs and hiring difficulties related to salaries allowed in the state system. The table below shows the number of contract hours used by government entities between October 2005 and September 2006 and the costs of those services. The total cost to the state was \$12,222,973.

## State Temporary IT Contract Usage - October 2005 and September 2006

Count	Department Name	Hours - Regular	Hours - Overtime	Amt Billed - Net (Excluding Fees)	Fee - Client
1	Blind Commission	723.00	0.00	\$54,225.00	\$271.18
2	Budget & Control Board	33,606.25		\$2,703,974.50	\$13,520.71
3	Central Carolina Technical College	136.00	0.00	\$8,212.00	\$41.07
4	Clemson University	951.50	0.00	\$60,451.26	\$302.26
5	College of Charleston	120.00	0.00	\$9,000.00	\$45.00
6	Comptroller General's Office	50.00	0.00	\$5,250.00	\$26.26
7	Deaf & Blind School	421.50	0.00	\$14,736.90	\$73.69
8	Department of Alcohol & Other Drug Abuse Services	96.25	0.00	\$6,737.50	\$33.71
9	Department of Corrections	1,758.50	0.00	\$135,568.50	\$677.89
10	Department of Disabilities and Special Needs	1,613.50	0.00	\$120,464.00	\$602.40
11	Department of Health and Human Services	1,286.00	0.00	\$129,084.00	\$645.42
12	Department of Juvenile Justice	1,578.00	0.00	\$137,100.00	\$685.52
13	Department of Mental Health	575.00	0.00	\$40,250.00	\$201.25
14	Department of Motor Vehicles	21,650.00	60.00	\$1,676,836.13	\$8,384.89
15	Department of Public Safety	1,225.50	0.00	\$90,457.50	\$452.32
16	Department of Revenue	29,924.75	0.00	\$2,701,315.29	\$13,507.13
17	Department of Transportation	3,637.00	0.00	\$313,662.75	\$1,568.47
18	Education Department	10,443.50	0.00	\$692,643.50	\$3,463.43
19	Education Lottery Commission	549.50	0.00	\$35,717.50	\$178.60
20	Employment Security Commission	2,813.25	0.00	\$221,062.00	\$1,105.33
21	Governor's Office - SLED	960.00	0.00	\$64,320.00	\$321.66
22	Health & Environmental Control Department	8,099.25	30.00	\$478,021.00	\$2,390.20
23	Housing, Finance & Development Authority	809.00	0.00	\$76,582.50	\$383.00
24	Insurance Department	2,998.00	0.00	\$224,850.00	\$1,124.23
25	Judicial Department	9,609.00	0.00	\$1,017,825.64	\$5,089.41
26	Midlands Technical College	200.00	0.00	\$16,000.00	\$80.00
27	Piedmont Technical College	336.00	0.00	\$25,200.00	\$126.02
28	Public Service Commission	2,085.25	0.00	\$218,951.25	\$1,094.95
29	Richland County School District One	11,448.25	0.00	\$577,588.05	\$2,888.01
30	Richland County School District Two	443.00	0.00	\$30,390.00	\$151.95
31	S C Workers' Compensation Commission	599.00	0.00	\$25,158.00	\$125.79
32	Social Services Department	104.00	0.00	\$12,480.00	\$62.40
33	Technical & Comprehensive Education Board	794.75	0.00	\$60,997.50	\$305.01
34	University of South Carolina - Columbia	1,858.00	0.00	\$177,046.25	\$885.42
	<b>Total</b>	<b>153,502.50</b>	<b>90.00</b>	<b>\$12,162,158.52</b>	<b>\$60,814.58</b>

## **9. Agency Specific Issues**

The Project Team reported several issues that are specific to some agencies.

- 1) Some agencies are unwilling to pay salaries currently allowed by state guidelines. There is resistance to allowing salaries of technical staff members to be as high or higher than managers outside of IT in higher positions on the organizational chart. Other agencies appear to be reluctant to use the higher band 07 and band 08 classifications that are available for IT jobs for the same reason.
- 2) Many agencies do not have enough FTEs to hire needed IT staff and turn to the State Temporary IT Contract because of this.
- 3) The cost of living in some parts of the state, such as Charleston, is considerably higher than in other parts of the state. This situation makes it more difficult for government entities to recruit and hire qualified state employees in these areas.

## **10. Recommendations**

The State would be best served by empowering IT Directors to hire FTEs at the salaries necessary to recruit qualified staff. Consideration should be given to the cost of living associated with various locations. IT Directors need the support of Agency Directors in the use of high band positions and higher salaries. As evidenced by the costs presented in this report, Agency Directors can enable the State to save money by supporting these recommendations.

To provide data processing services to SC government in the most efficient manner possible, State Agency IT Directors need the support of State Agency Executive Managers to move forward in the following areas.

- 1) Utilize the Band 07, 08, and 09 classifications where needed to hire qualified staff at salaries necessary to attract highly skilled employees.
- 2) Adopt the Project Team's recommendations to use a blend of both government and private sector salaries as the most appropriate representation of the competitive market for State IT positions.
- 3) Build and fund a professional development plan for IT employees with appropriate career paths defined.
- 4) Implement the strategies identified to help attract and retain IT staff. This would enable the state to avoid some of the expensive costs associated with employee turnover.
- 5) Provide IT Directors with adequate FTEs to staff IT projects. This would allow IT Directors to use the most appropriate method of acquiring IT resources, which would hold down the cost of more expensive private contract employees.



## **Appendix 1 – Newly Created Position Classifications**

# **STATE OF SOUTH CAROLINA**

## **Information Technology Systems Architect**

### General Nature of Work:

"Responsible for applying technology and designing system architectures to align with organizational strategic business objectives. Works closely with project management and customers to provide coherent direction for enterprise IT initiatives. Interacts directly with client staff and management in analyzing situations and resolving strategic technology and business process issues. Creates architecture diagrams, data models, and technology navigation maps. Provides technical mentoring which may include instructional services."

### Guidelines for Class Use/Distinguishing Characteristics:

Provides overall senior technical leadership for technology engagements at enterprise levels across organizations. The employee in this position will work under minimal supervision but will be expected to confer daily so that elements of the project can remain smooth. The employee will be required to have a high level of initiative. Some positions in this class may have supervisory responsibilities.

### Examples of Work:

(Note: The examples of work listed in this class specification are not necessarily descriptive of any one position in the class. The omission of specific statements does not preclude management from assigning specific duties not listed herein if such duties are a logical assignment to the position. The intent of the listed examples is to give a general indication of the levels of difficulty and responsibility common to all positions in this class.)

"Responsible for applying technology and designing system architectures to align with organizational strategic business objectives.

Under minimal direction, blends the right combination of specializations to conceptualize, design and develop total system/product solutions for enterprise-wide information technology and/or engineering of business processes. Creates information technology plans based on an understanding of the customer's organization, strategic direction, technology context and business needs.

Leads and works in a collaborative effort to conceptualize total systems and/or product solutions.

Translates customer and organizational objectives and critical success factors into actionable business, organization and technology strategies.

Assists leadership in determining tactical and strategic direction of information technology at the division/organization level.

Monitors market trends and the work of standard bodies to assist management and the customer in defining technical standards.

Participates in proposals and marketing studies.

Researches, evaluates and stays current on technology tools, techniques and emerging technologies.

".

### Knowledge, Skills and Abilities:

(Note: The knowledge, skills and abilities listed are not necessarily inclusive of the requirements for every position in the class.)

"Experience in designing and implementing enterprise level systems architectures.

Demonstrated knowledge/skills of the IT industry which includes: multi-tiered architectures, enterprise applications, evaluation of emerging technologies, networks, data management systems and hardware systems.

Ability to plan, organize, direct and review the work of technical personnel.

Ability to establish and maintain working relationships with clients, technical staff, management, vendors and others.

Knowledge of the principles and techniques of planning programs and work activities in a technical environment.

".

Necessary Special Requirement:

Minimum Requirements:

(Note: Additional requirements may be applicable for individual positions in the employing agency.)

"A bachelor's degree in related information technology or related field and experience in business administration, computer science, mathematics, engineering, management information science, networking-telecommunications and/or data processing."

# STATE OF SOUTH CAROLINA

## Project Coordinator

General Nature of Work:

Under general supervision, assists project managers or a project management office with administrative project activities. Manages or serves as a project team member on projects with limited scope and minimal complexity and risk.

Guidelines for Class Use/Distinguishing Characteristics:

This is an entry-level class for positions that typically perform administrative project management activities and provide logistical support for projects. Incumbents in this class may also use basic project management techniques to manage less complicated projects of limited scope, risk, duration, budget, or complexity under the direction of a higher-level project manager.

Examples of Work:

(Note: The examples of work listed in this class specification are not necessarily descriptive of any one position in the class. The omission of specific statements does not preclude management from assigning specific duties not listed herein if such duties are a logical assignment to the position. The intent of the listed examples is to give a general indication of the levels of difficulty and responsibility common to all positions in this class.)

Updates project plans, schedules and reports; monitors and reports project spending; distributes plans, schedules and reports to project team members and other stakeholders.

Tracks, updates and maintains project requirements, documentation, issues, funding, risks and supports all other project deliverables under the direction of the project manager.

Assists with facilitating meetings and organizing meeting logistics such as: scheduling meetings, reserving meeting rooms and other resources, preparing meeting minutes, and other communications as required.

Communicates to project team members and stakeholders scheduling information and changes, as needed.

Assists in the needs analysis, preparation of business case, or other required documentation during pre-planning stage.

Manages and coordinates all tasks associated with one or more small projects with minimal complexity and risk or a component of a larger project of minimal to moderate complexity and risk.

Knowledge, Skills and Abilities:

(Note: The knowledge, skills and abilities listed are not necessarily inclusive of the requirements for every position in the class.)

General knowledge of project management principles and methodologies.

Familiarity with project management software, project management principles and methodologies.

Knowledge of applicable project management terminology.

Ability to effectively plan and organize work activities and prioritize task completion according to schedules and goals.

Ability to exercise judgment and discretion.

Ability to establish and maintain effective working relationships.  
Ability to interpret and apply laws, regulations, policies and procedures.  
Ability to communicate effectively.

Necessary Special Requirement:

Minimum Requirements:

(Note: Additional requirements may be applicable for individual positions in the employing agency.)

High school diploma and relevant experience.

# STATE OF SOUTH CAROLINA

## Project Manager I

General Nature of Work:

Under general supervision, manages and coordinates all tasks associated with one or more small projects or a component of a larger project of minimal to moderate complexity and risk.

Guidelines for Class Use/Distinguishing Characteristics:

This class is intended for use as a journey-level project manager within the professional project management discipline. Incumbents use project management techniques to manage projects of moderate complexity and risk, or manage part of a project of significant complexity and risk.

Examples of Work:

(Note: The examples of work listed in this class specification are not necessarily descriptive of any one position in the class. The omission of specific statements does not preclude management from assigning specific duties not listed herein if such duties are a logical assignment to the position. The intent of the listed examples is to give a general indication of the levels of difficulty and responsibility common to all positions in this class.)

Prepares necessary documentation (i.e., needs analysis, business case, feasibility analysis, etc.) to support project initiative; develops and maintains documentation throughout the entire project lifecycle.  
Responsible for managing and directing the initiation, planning, execution, control, and closeout phases of the project lifecycle for small/minor projects.  
Coordinates and manages projects using project management methodologies from inception through completion.  
Defines and prioritizes project requirements.  
Develops work plan(s); controls budget, scope and schedule to ensure project deliverables, milestones and required tasks completed as planned.  
Oversees the development and execution of communication plan, which may include communicating with organizational leaders, elected officials and/or the general public about the project's impact or status.  
Prepares status reports and provides updates to project stakeholders, sponsors, champion, etc.  
Coordinates requests and recommends changes from original specifications with project sponsor, project team, or stakeholders.  
Identifies potential problems; facilitates problem resolution by determining or recommending and implementing a risk mitigation strategy.  
Assists in creating quality management plans; develops and maintains project documentation; oversees project design to ensure compliance with federal and state laws, or agency's criteria, codes and regulations.

Knowledge, Skills and Abilities:

(Note: The knowledge, skills and abilities listed are not necessarily inclusive of the requirements for every position in the class.)

'Knowledge of an agency's mission, programs, and objectives.  
Knowledge of project management principles and methodologies.  
Ability to assign appropriate priorities to work activities based on organizational goals and situational pressures.  
Ability to effectively plan and organize work activities and prioritize task completion to meet schedules and deadlines.  
Ability to conceptualize needed change and to initiate appropriate activities to move from concepts to implementation.  
Ability to interpret and apply rules and regulations.  
Ability to manage work and provide guidance to employees.  
Ability to make presentations and prepare reports.

Necessary Special Requirement:

Some positions may require certification as a Certified Associate in Project Management or Project Management Professional (PMP).

Minimum Requirements:

(Note: Additional requirements may be applicable for individual positions in the employing agency.)

A bachelor's degree and relevant project management experience.

# STATE OF SOUTH CAROLINA

## Project Manager II

General Nature of Work:

Under limited supervision, manages and coordinates all tasks associated with one or more major, multi-agency, or enterprise projects of significant complexity and risk.

Guidelines for Class Use/Distinguishing Characteristics:

'This class is intended for use as an advanced-level project manager within the professional project management discipline. Incumbents use project management techniques to manage projects of significant complexity and risk.

Examples of Work:

(Note: The examples of work listed in this class specification are not necessarily descriptive of any one position in the class. The omission of specific statements does not preclude management from assigning specific duties not listed herein if such duties are a logical assignment to the position. The intent of the listed examples is to give a general indication of the levels of difficulty and responsibility common to all positions in this class.)

Defines project objectives and scope by reviewing project proposal to determine time frame, available funding, procedures, and various phases of project life cycle for major, multi-agency, or enterprise projects.  
Prepares necessary documentation to support project initiatives; reviews and manages proposal selection and bid recommendations.  
Coordinates and manages projects using project management methodologies from inception through completion.  
Determines and evaluates risks that may affect the project and implement a risk mitigation strategy.  
Oversees the development and execution of communication plan which may include communicating with organizational leaders, elected officials, and the general public about the project's impact or status.  
Prepares status reports and provides updates to project stakeholders, sponsors, champion, etc.  
Manages the procurement process required by the project and participates in contract negotiations resulting from Request For Proposal selection.  
Reviews requests and recommends changes from original specifications with project sponsor, project team, or

stakeholders.

Reviews progress and status of all projects within a program and identifies specific activities to be performed to ensure project deliverables, milestones, and required tasks are completed according to project deadline.

Creates quality management plans; develops and maintains project documentation; oversees project design to ensure compliance with federal and state laws, or agency's criteria, codes and regulations.

Assists in the development and delivery of project management training and workshops.

#### Knowledge, Skills and Abilities:

(Note: The knowledge, skills and abilities listed are not necessarily inclusive of the requirements for every position in the class.)

Knowledge of an agency's mission, programs, and objectives.

Knowledge of project management principles and methodologies.

Ability to plan, organize, and coordinate work assignments.

Ability to manage work, delegate, and provide guidance to employees.

Ability to make presentations and prepare reports.

Knowledge of state government procurement regulations and processes.

Knowledge of state government fiscal policies, procedures, and processes.

Knowledge of project management principles and methodologies.

Ability to assign appropriate priorities to work activities based on organizational goals and situational pressures.

Ability to effectively plan and organize work activities and prioritize task completion to meet schedules and deadlines.

Ability to conceptualize needed change and to initiate appropriate activities to move from concepts to implementation.

Ability to interpret and apply rules and regulations.

Ability to communicate effectively.

#### Necessary Special Requirement:

Some positions may require certification as a Certified Associate in Project Management or Project Management Professional (PMP).

#### Minimum Requirements:

(Note: Additional requirements may be applicable for individual positions in the employing agency.)

A bachelor's degree and experience managing large projects of moderate complexity and risk.

## **STATE OF SOUTH CAROLINA**

### **Director of Project Management**

#### General Nature of Work:

Responsible for the management and coordination of all tasks associated with large projects of high complexity and risk, to include the management and coordination of enterprise projects or a multi-agency projects of the highest complexity and risk.

#### Guidelines for Class Use/Distinguishing Characteristics:

Positions in this class assume highly complex, expert-level project management responsibilities. Incumbents are responsible for directing or providing project management consultation for all aspects of the design, development, and implementation of projects. Projects may be specific to the agency or may involve local, state, or federal

government agencies. Individuals in this classification typically serve as the Director of the Project Management Office within the agency.

### Examples of Work:

(Note: The examples of work listed in this class specification are not necessarily descriptive of any one position in the class. The omission of specific statements does not preclude management from assigning specific duties not listed herein if such duties are a logical assignment to the position. The intent of the listed examples is to give a general indication of the levels of difficulty and responsibility common to all positions in this class.)

Directs the implementation and enforcement of successful project management methodologies; communicates individual roles and project or program expectations.

Directs and provides project management consultation for all aspects of the design, development, and implementation of programs or projects within a program (i.

e.

, performs project analysis, valuation, development, post-implementation review, and production support for highly complex projects); prepares final assessment of project achievements and suggests changes for future projects; conducts formal review at the completion of the program and each related project to confirm and track customer satisfaction.

Works with development team to integrate areas of improvement into the systems development life cycle and project management processes.

When serving as the Director of a Project Management Office, establishes, maintains, and promulgates the use of agency-wide project management methods, standards, processes, and practices.

Provides the highest level of project management expertise to assist those making strategic decisions (e.

g.

, justifies the scope, time frame, and cost of the project to agency representatives) and may establish strategic direction for projects to ensure resources are optimized and priorities are continuously reviewed.

Determines staffing requirements and forms project teams, taking into consideration fiscal and human resources, to support long-term projects and programs.

Oversees the development and implementation of changes to ensure the project remains within specified scope and is within time, cost, and quality objectives; monitors time lines and critical dates.

Performs risk assessments of projects and develops appropriate risk mitigation strategies.

Oversees and manages the procurement process required by the project and participates in contract negotiations resulting from Request For Proposal selection.

Oversees the development of detailed program plans and schedules and reviews the progress and status of all projects within a program; reviews project plans developed by project managers; compiles a master project plan and coordinates the requirements of a program or multiple sub-projects.

Provides work direction and leadership to programs to include the scheduling, assignments of work, and review of individual project efforts; ensures that all project team members have the tools and training required to perform effectively.

Manages, mentors, or coaches entry-level or junior-level project managers.

Oversees the development of project management procedures, policies, and strategies.

Oversees the development and delivery of project management training and workshops.

Maintains a productive working relationship with program sponsors, vendors, and key stakeholders.

### Knowledge, Skills and Abilities:

(Note: The knowledge, skills and abilities listed are not necessarily inclusive of the requirements for every position in the class.)

Knowledge of an agency's mission, programs, and objectives.

Knowledge of project management principles and methodologies.

Knowledge of an agency's organizational structure, the people who manage the work, and the processes applicable to government work.

Knowledge of state government procurement regulations and processes.

Knowledge of state government fiscal policies, procedures, and processes.

Ability to communicate effectively.

Ability to interpret and apply rules and regulations.

Ability to manage work and provide guidance to employees.

Ability to assign appropriate priorities to work activities based on organizational goals and situational pressures.

Ability to effectively plan and organize work activities and prioritize task completion to meet schedules and deadlines.

Ability to conceptualize needed change and to initiate appropriate activities to move from concepts to implementation.

Ability to develop and manage project budget, materials, and equipment.

Ability to make presentations and prepare reports.

Necessary Special Requirement:

Some positions may require certification as a Certified Associate in Project Management or Project Management Professional (PMP).

Minimum Requirements:

(Note: Additional requirements may be applicable for individual positions in the employing agency.)

A bachelor's degree and experience managing large projects of significant complexity and risk.

## **Appendix 2 – New Position Classifications Recommended**

# **STATE OF SOUTH CAROLINA**

## **Senior Software Engineer**

### General Nature of Work:

Performs the independent analysis, development, testing, implementation and maintenance of the most complex Web, mainframe, or client server technologies. Assists in workshops, coordinating with multi-program end-users and management, tracking user acceptance testing /training.

### Guidelines for Class Use/Distinguishing Characteristics:

This position is intended to enable hiring of highly skilled computer technicians who are experts in high demand fields. Employees in this class will serve on extremely complex projects. Some may have supervisory responsibilities, but supervision it is not a requirement for this job.

### Examples of Work:

(Note: The examples of work listed in this class specification are not necessarily descriptive of any one position in the class. The omission of specific statements does not preclude management from assigning specific duties not listed herein if such duties are a logical assignment to the position. The intent of the listed examples is to give a general indication of the levels of difficulty and responsibility common to all positions in this class.)

Utilizes the most complex Web, mainframe, or client server technologies in the development, testing, implementation and maintenance of complex computer systems.

Participate in the preparation of needs assessments, planning documents, RFPs, budgets, and project reports.

Performs independent analysis of user needs and recommend solutions.

Assists in workshops, coordinating with multi-program end-users and management, tracking user acceptance testing /training.

Coordinates with users in developing new systems or modifying existing systems.

Actively participate in the use of the State Project Management Methodology or approved State agency methodology. This methodology includes project documentation, planning, scheduling, change management, resource allocation, communication, budgeting, quality and risk management, and requirements tracking.

Prepare and deliver professional quality written and oral reports to staff, end-users, and management. Develop and deliver professional quality PowerPoint presentations as needed. Develop comprehensive technical documentation and user manuals.

### Knowledge, Skills and Abilities:

(Note: The knowledge, skills and abilities listed are not necessarily inclusive of the requirements for every position in the class.)

In depth knowledge of computer system analysis, design, testing, debugging and maintenance techniques.

Extensive knowledge of computer programming languages and recognized expert in at least one.

Extensive knowledge of management skills and techniques.

Ability to prepare technical reports in a clear and concise manner.

Ability to work effectively with users, vendors and staff members.

Ability to plan, direct, instruct and review the work of technical personnel.



Necessary Special Requirement:

Minimum Requirements:

(Note: Additional requirements may be applicable for individual positions in the employing agency.)

A high school diploma and extensive expert level experience in computer system development and modification or a bachelor's degree in computer science or related field and expert level experience in computer system development and modification.

# STATE OF SOUTH CAROLINA

## Senior Data Base Administrator

General Nature of Work:

Oversees administration of multiple, complex database applications; determines proper hardware and software environments for specific database applications; assists technical personnel in database tuning and performance issues; advises upper management in the project direction and procurement of database projects.

Guidelines for Class Use/Distinguishing Characteristics:

Examples of Work:

(Note: The examples of work listed in this class specification are not necessarily descriptive of any one position in the class. The omission of specific statements does not preclude management from assigning specific duties not listed herein if such duties are a logical assignment to the position. The intent of the listed examples is to give a general indication of the levels of difficulty and responsibility common to all positions in this class.)

Plans and implements a strategic plan for deploying database management projects by evaluating and determining the appropriate hardware, software and/or operating system required for successful implementation and ongoing maintenance ensuring that database performance and integrity meet service level agreements while addressing all aspects of the development life cycle. Consults with member of the development/technical team on database development and collaborates on physical and logical design reviews. Participates in the development of database standards and procedures. Possesses the ability to work independently or lead the planning and completion of diverse database and infrastructure tasks.

Coordinate and provide support to Applications Development, System Administrators and Operation Support for database systems in the organization through out the development life cycle maintaining multiple production and development environments. Perform database installation, configuration, setup, and monitoring and administration, assist in the proper tuning of databases, recommend and assist in appropriate database tuning techniques and usage of performance software tools to assist technical staff. Support the reporting and business intelligence systems. Implement complex backup and restore procedures. Develop disaster recovery, planning procedures. Provide after hours support.

Evaluate databases and make recommendations to agency management on the procurement of database software, database management tools, and the necessary hardware and software for optimal database performance. Proactively monitor, support and manage database utilization, identify and avert performance and tuning trends or problems that could degrade system performance or availability.

Establishes and maintains contact with vendors for software support and problem resolution; maintains knowledge of current enhancements in database software.

Maintains system integrity and compliance with standards; makes recommendations to technical personnel for database improvements and upgrades where appropriate.

Knowledge, Skills and Abilities:

(Note: The knowledge, skills and abilities listed are not necessarily inclusive of the requirements for every position in the class.)

Knowledge of multiple database management systems, concepts and design methodologies.

Knowledge of database structures, data security, systems integrity and monitoring and auditing activities.

Knowledge of multiple computer operating systems and hardware platforms, and their compatibilities with database systems.

Experience in High Availability database solutions such as clustering and mirroring

Data warehouse and reporting experience is a plus. Extraction, transformation and loading (ETL) processing are a plus.

Ability to integrate technical systems with agency goals and objectives.

Ability to prepare and present technical and nontechnical reports in a clear and concise manner.

Ability to establish positive working relationships with technical staff, customers and others involved in database management.

Ability to manage subordinate technical staff in the design and support of database management systems.

Necessary Special Requirement:

Minimum Requirements:

(Note: Additional requirements may be applicable for individual positions in the employing agency.)

A high school diploma and extensive expert level experience in support of multiple complex database management systems, or a bachelor's degree and expert level experience in support multiple complex database management systems.

### Appendix 3 - State Salary Survey Information

State Salary Survey Questions								
					Salary Range			
South Carolina Job Title	Your State's Job Title	* Match (-=+)	No. of Incumbents	Average Salary	Minimum	Midpoint	Maximum	Comments
Senior Database Administrator								
Programmer								
Applications Analyst I								
Applications Analyst II								
Senior Applications Analyst								
Senior Software Engineer								
IT Manager - Applications								
IT Manager - Operations								
IT Manager - Systems								
Information Technology Director								
Senior Informaiton Technology Director								
Agency Chief Information Officer								
Network Support Technician								
Network Adm inistrator								
Web Design Engineer								
IT Project Manager								
* The strength of your position compared to the SC position								

## **POSITION DESCRIPTIONS INCLUDED IN THE SOUTH CAROLINA IT PROFESSIONAL SALARY SURVEY**

<b>1 – SENIOR DATABASE ADMINISTRATOR.....</b>	<b>37</b>
<b>2 – PROGRAMMER .....</b>	<b>37</b>
<b>3 – APPLICATIONS ANALYST I.....</b>	<b>37</b>
<b>4 – APPLICATIONS ANALYST II .....</b>	<b>38</b>
<b>5 – SENIOR APPLICATIONS ANALYST.....</b>	<b>38</b>
<b>6 – SENIOR SOFTWARE ENGINEER .....</b>	<b>38</b>
<b>7 – IT MANAGER - APPLICATIONS.....</b>	<b>39</b>
<b>8 – IT MANAGER – OPERATIONS.....</b>	<b>39</b>
<b>9 – IT MANAGER – SYSTEMS AND INFRASTRUCTURE.....</b>	<b>39</b>
<b>10 – INFORMATION TECHNOLOGY DIRECTOR .....</b>	<b>40</b>
<b>11 – SENIOR INFORMATION TECHNOLOGY DIRECTOR .....</b>	<b>40</b>
<b>12 – AGENCY CHIEF INFORMATION OFFICER .....</b>	<b>41</b>
<b>13 – NETWORK SUPPORT TECHNICIAN (Single Platform) .....</b>	<b>41</b>
<b>14 – NETWORK ADMINISTRATOR (Multiple Platforms) .....</b>	<b>41</b>
<b>15 – WEB DESIGN ENGINEER.....</b>	<b>41</b>
<b>16 – IT PROJECT MANAGER.....</b>	<b>42</b>

## **1 – SENIOR DATABASE ADMINISTRATOR**

**Position Summary:** This position operates under limited supervision; directs, develops, and administers database management systems; develops data standards, documentation, and design of security and unauthorized procedures; serves as the lead database administrator for database support for an organization with extensive and complex database operations; performs complex analysis, design, development, installation, and maintenance for support and/or expansion of applications; performs complex system problem resolution for database and application systems; maintains system integrity and compliance with standards; conducts tests to determine database integrity; develops detailed backup and recovery solutions.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have relevant two or four-year degree and at least eight years of directly related experience in database development, support, and maintenance.

**Other Distinguishing Characteristics:** These positions will display expert level experience in complex computing environments, such as J2EE or Microsoft .Net. Positions will require expert level expertise in a RDBMS engine (SQL, DB2, Oracle, etc) development and tuning, including such areas as XML, web services, stored procedures. Incumbents will have the ability to transform physical data models into implementation data architecture. This position requires the ability to manage subordinate technical staff in the design and support of database management systems. Incumbents may also participate in strategic planning for the IT area, conduct needs assessments, and provides input in the selection of software and hardware.

## **2 – PROGRAMMER**

**Position Summary:** This is an entry level programming position with responsibility for coding, testing and debugging programs of moderate complexity. Under the direction of more senior programmers or analysts, assists in the development of major system modules and programs. Incumbents in these positions should be fully knowledgeable in at least two programming languages, as well as knowledgeable of program design, specification development, testing, debugging, and documentation.

**Minimum Training and Experience Requirements:** These positions typically have a relevant two or four year degree or one to three years experience.

**Other Distinguishing Characteristics:** These positions may be considered entry level to a career path in software systems analysis and development.

## **3 – APPLICATIONS ANALYST I**

**Position Summary:** This position is an entry-level systems analyst position, responsible for: coding, testing and debugging new or existing programs; conferring with users and data processing staff to study and discuss the design of new systems or revisions to existing systems; participating in development of system procedures and user documentation, including user manuals; generating ad hoc reports; designing input/output formats, including online screens and report formats; consulting with clients and providing solutions for routine problems.

**Minimum Training and Experience Requirements:** : Incumbents in these positions typically have a relevant two or four year degree and one to three years experience in computer programming or computer system development and modification. A bachelor's degree in a related area may be substituted for the required work experience.

**Other Distinguishing Characteristics:** Has knowledge/training of either the J2EE or Microsoft .Net environments, and in development languages such as Java and C#; knowledge/training in Web platform, using XML, SOAP, and web services in an application-to-application environment; utilizes relational database techniques for DB2, Oracle, or Microsoft SQL Server. This position is entry-level and typically is not a supervisory position.

## **4 – APPLICATIONS ANALYST II**

**Position Summary:** This position performs independent analysis of computer systems with responsibility for the design, programming, testing, debugging and implementation of systems; collects and analyzes problems users have with systems and proposes solutions; works with users in developing new systems or modifying existing systems and makes recommendations or proposals for new systems or enhancements; serves as a lead analyst on moderately complex systems and as back up for large complex systems; prepares or assists with the preparation of systems documentation and user manuals; consults with clients and provides solutions for routine to moderately complex problems.

**Minimum Training and Experience Requirements:** : Incumbents in these positions typically have a relevant two or four year degree and three to five years experience in computer programming or computer system development and modification.

**Other Distinguishing Characteristics:** Displays experience in either the J2EE or Microsoft .Net environments, and in development languages such as Java and C#; experienced in Web platform, using XML, SOAP, and web services in an application-to-application environment; utilizes relational database techniques for DB2, Oracle, or Microsoft SQL Server. May work with general or limited supervision; some positions may supervise entry-level programmers and analysts on a project basis. Some positions may also be responsible for planning technical staff's work assignments. Position typically reports to an Information Technology Manager or a Senior Applications Analyst.

## **5 – SENIOR APPLICATIONS ANALYST**

**Position Summary:** This position performs independent analysis of advanced computer systems with responsibility for the design, programming, testing, debugging and implementation of systems; collects and analyzes problems users have with systems and proposes solutions; serves as lead analyst in developing new systems or modifying existing systems and makes recommendations or proposals for new systems or enhancements; serves as a lead analyst on large complex systems; prepares or assists with the preparation of systems documentation and user manuals; consults with clients and provides solutions for routine to moderately complex problems.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have a relevant two or four year degree and five to seven years experience in computer programming or computer system development and modification.

**Other Distinguishing Characteristics:** Displays experience in either the J2EE or Microsoft .Net environments, and in development languages such as Java and C#; experienced in Web platform, using XML, SOAP, and web services in an application-to-application environment; utilizes relational database techniques for DB2, Oracle, or Microsoft SQL Server. May work with general or limited supervision; some positions may supervise entry-level programmers and analysts on a project basis. Some positions may also be responsible for planning technical staff's work assignments. Position typically reports to an Information Technology Manager or a Senior Applications Analyst.

## **6 – SENIOR SOFTWARE ENGINEER**

**Position Summary:** This position operates under limited supervision; oversees, leads and coordinates the planning, analysis, design, implementation and maintenance of complex computer systems; provides guidance and direction in the selection and development and implementation tools that integrate the agency's technical environment; directs and oversees the design, development, testing and implementation of an agency's most critical information systems; directs the preparation of systems documentation and user manuals; consults with clients and provides solutions for complex problems.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have a relevant two or four-year degree and at least eight years experience in computer programming or computer system development and modification.

**Other Distinguishing Characteristics:** : Displays expert level experience in either the J2EE or Microsoft .Net environments, and in development languages such as Java and C#; expert in Web platform, using XML, SOAP, and

web services in an application-to-application environment; utilizes relational database techniques for DB2, Oracle, or Microsoft SQL Server. This position serves as the technical project leader or a senior technical staff member for assigned major application areas for an agency. This position typically has supervisory responsibility.

## **7 – IT MANAGER - APPLICATIONS**

**Position Summary:** This position works under limited supervision while planning, coordinating and directing all IT applications development and maintenance for a large IT shop. Develops and maintains architecture models for large, integrated, mission-critical applications that support the operations of a large state agency or enterprise applications. Designs component structures and relationships, builds architecture framework based on the agency's or enterprise's core business processes and stakeholder requirements. Uses application technologies such as Services Oriented Architecture (SOA), workflow engines and business rules engines to build high-performance, highly maintainable application architectures. Performs in-depth research; maintains currency with industry trends. Recommends application development technologies and techniques. Serves as senior consultant to applications and systems analysts in the design and development of application components within the architectural framework. Maintains design rules; participates in high-level reviews of application designs. Works with Application Architects and senior analysts across multiple agencies to develop architecture frameworks for Enterprise applications.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have a relevant two or four-year degree and at least ten years experience in application development, at least three of which must have been in a senior application design capacity.

**Other Distinguishing Characteristics:** Incumbents in this position typically have intensive, expert-level knowledge and experience in application development, including development methodologies, application modeling, and architecture development. Incumbents are responsible for developing applications of moderate to high levels of complexity for large-scale mission critical applications for large state agencies or enterprise applications. This position may have subordinates or a group of peers who perform supporting duties.

## **8 – IT MANAGER – OPERATIONS**

**Position Summary:** This position works under limited supervision while managing and directing the communications and information processing utilities which support the general operations for a large IT shop. Directs operations policies and work standards which govern the availability and performance of IT hardware systems. Works with systems programmers and operations staff to schedule production processing activities so as to efficiently provide for the agency's needs. Ensures that appropriate security systems and procedures are in place. Manages system operations to provide access and processing efficiency.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have a relevant two or four year degree and at least eight years experience in computer operations.

**Other Distinguishing Characteristics:** Incumbents in this position typically have extensive, expert-level knowledge and experience in mainframe and server architectures, operating systems across multiple platforms, network topologies, protocols, and uses. Incumbents are responsible for management of operations scheduling and processing activities for a large state agency. This position may have subordinates or a group of peers who perform supporting duties.

## **9 – IT MANAGER – SYSTEMS AND INFRASTRUCTURE**

**Position Summary:** This position works under limited supervision while planning, coordinating and directing all IT hardware and systems infrastructure development for a large IT shop. Designs and maintains an integrated technology architecture comprising hardware, voice and data networks, systems software, and third-party services as needed to meet the Data Architecture and Application Architecture of a large, complex state agency. Designs component structures and selects appropriate platforms. Sizes hardware and network capacity to meet performance needs; plans for anticipated growth patterns.

Ensures that systems infrastructure meets capacity needs and maintains optimum performance. Serves as senior consultant for the implementation of agency infrastructure compliant with the technology architecture, as needed. Ensures that security and business process recovery are built into the technology architecture, not patched on. Determines requirements for redundancy in hardware, software, network, and services as architecture components. Establishes points of control for configuration management. Works with Office of State CIO, stakeholders, vendors, and other agencies to determine optimal utilization of central vs. distributed components to meet required service levels, including reliability, availability, and serviceability.

**Minimum Training and Experience Requirements:** : Incumbents in these positions typically have a relevant two or four-year degree and at least ten years experience in systems technology, including systems hardware, software, and network administration, at least three of which must include systems design responsibility.

**Other Distinguishing Characteristics:** Incumbents in this position typically have intensive, expert-level knowledge and experience in server architectures (including mainframes), platforms, and their strengths and weaknesses, operating systems across multiple platforms, network topologies, protocols, and uses. Incumbents are responsible for design and maintenance of integrated technology architecture, including hardware, network, and systems software for a large state agency. This position may have subordinates or a group of peers who perform supporting duties.

## **10 – INFORMATION TECHNOLOGY DIRECTOR**

**Position Summary:** This position operates under limited supervision while planning, coordinating and directing all information technology management activities for a small to medium-sized agency; coordinates, designs and/or promotes strategic technology initiatives that will improve the agency's overall operation; directs and conducts comprehensive studies and analyses of current systems, functions and operations; recommends policy for technology acquisition and use; determines feasibility of and develops and directs plans for modifying existing systems or developing new systems to meet the needs of the organization; manages program budget and personnel; oversees all aspects of an agency's IT operations.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have a relevant two or four year degree and at least six years experience in information technology systems development and management.

**Other Distinguishing Characteristics:** This position typically supervises Application Analyst I's, Application Analyst II's, Senior Application Analysts and Information Resource Consultants. Incumbents in this class will be the top IT position in an agency of medium size and complexity. Incumbents will also have personnel and budgetary responsibilities for their area of responsibility.

## **11 – SENIOR INFORMATION TECHNOLOGY DIRECTOR**

**Position Summary:** This position operates under limited supervision while planning, coordinating and directing all information technology management activities for a large agency; coordinates, designs and/or promotes strategic technology initiatives that will improve the agency's overall operation; directs and conducts comprehensive studies and analyses of current systems, functions and operations; recommends policy for technology acquisition and use; determines feasibility of and develops and directs plans for modifying existing systems or developing new systems to meet the needs of the organization; manages program budget and personnel; oversees all aspects of an agency's IT operations.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have a relevant two or four year degree and at least eight years experience in information technology systems development and management.

**Other Distinguishing Characteristics:** This position directs the activities of systems analysts, programmers and information resource professionals. Incumbents in this class will be the top IT position in large agency with complex IT infrastructure and will typically report to a senior member of management.



## **12 – AGENCY CHIEF INFORMATION OFFICER**

**Position Summary:** This position operates under very limited supervision and directs and plans the development, implementation and modification of information systems, applications, telecommunications, and data processing systems for the agency; coordinates, designs and/or promotes strategic initiatives that will improve the agency's overall operation; establishes policy for technology acquisition and use, assesses progress, and is held accountable for end results; evaluates, selects and purchases equipment; oversees installation and maintenance of equipment; manages program budget and personnel; establishes long-term funding commitments. Oversees the systems development lifecycle, which includes defining general system requirements, undertaking a feasibility analysis, planning, designing, implementing, testing, evaluating and maintaining the systems for the organization. Establishes the strategic direction for the use of technology in the organization.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have a relevant two or four year degree and at least ten years experience in information technology systems development and management.

**Other Distinguishing Characteristics:** This position serves at an executive level, and participates in the strategic management of the organization with an emphasis on the use of information technology and resources to help the organization achieve its goals. Directs the activities of systems analysts, programmers and other information resource professionals. Incumbents in this class will be the top IT position in large agency with complex IT infrastructure and will be a member of senior management.

## **13 – NETWORK SUPPORT TECHNICIAN (Single Platform)**

**Position Summary:** Under limited supervision, provides troubleshooting and maintenance of data servers, user devices, and communications links to assure operational availability of the network to users. This position has responsibility for both hardware and software aspects of network operations across a single LAN/WAN configuration. Assists with license management for agency; also manages user ids and domains. Responsible for scheduling and installing software products, updates, and patches.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have a relevant two or four year degree and three to five years experience in a data processing environment.

**Other Distinguishing Characteristics:** This position would typically be responsible for a single network area in a large agency and is responsible for all aspects of the network installation, maintenance and support. Incumbents would typically recommend, select, and install commercial off-the-shelf (COTS) software and hardware rather than design and build alternative solutions.

## **14 – NETWORK ADMINISTRATOR (Multiple Platforms)**

**Position Summary:** Under limited supervision, provides troubleshooting and maintenance of data servers, user devices, and communications links to assure operational availability of the network to users. This position has responsibility for both hardware and software aspects of network operations across a multiple LAN/WAN configuration. Supervises license management for agency; also manages user ids and domains. Responsible for procuring, scheduling and installing software products, updates, and patches. Optimizes storage management within the agency.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have a relevant two or four year degree and five to seven years experience in a data processing environment.

**Other Distinguishing Characteristics:** This position would typically be responsible for multiple networks within an agency. Subordinates may be responsible for individual network support activities.

## **15 – WEB DESIGN ENGINEER**

**Position Summary:** Provides advanced level consulting in the design, development, layout, evaluation, maintenance, upgrading, availability, analysis and technical functionality and content for the web

operations for a state agency; develops and implements standards for graphic content, layout and design of web pages in order to ensure a coherent and usable site; oversees security of the web environment; provides technical web expertise to develop and support web based programs of the agency.

**Minimum Training and Experience Requirements:** Incumbents in these positions typically have a relevant two or four year degree and at least five years experience of progressive WWW/Internet site operations.

**Other Distinguishing Characteristics:** The duties of this position are of moderate to significant complexity and are performed for medium to large-sized agencies. This position is the chief web strategist for the agency and is responsible for providing technical guidance to integrate all web-based programs effectively.

## **16 – IT PROJECT MANAGER**

**Position Summary:** Under general supervision, manages and coordinates all tasks associated with multiple small projects or a major component of a larger project of minimal to moderate complexity and risk. Coordinates and manages projects using project management methodologies from inception through completion. Oversees the development and execution of project communication plans, which may include communicating with organizational leaders, elected officials and/or the general public about the project's impact or status. Coordinates requests and recommends changes from original specifications with project sponsor, project team, or stakeholders. Identifies potential problems; facilitates problem resolution by determining or recommending and implementing a risk mitigation strategy. Assists in creating quality management plans; develops and maintains project documentation; oversees project design to ensure compliance with federal and state laws, or agency's criteria, codes and regulations.

**Minimum Training and Experience:** Incumbents in these positions typically have a relevant four year degree and one to three years experience managing projects. Some positions require certification as an Associate State Certified Project Manager (ASCPM) or Project Management Professional (PMP).

**Other Distinguishing Characteristics:** This class is a journey-level project manager within the professional project management discipline. Projects managed will typically be of moderate impact and visibility within an agency. The scope of projects normally spans the agency, and in some cases may extend to other agencies. The timeline for project completion can be one to two years and may have budgetary responsibility.

2006 IT Professional Salary Participants		
1	Alabama	Stan Goolsby
2	Arkansas	Callan Callaway
3	Florida	Windle Edenfield
4	Georgia	Naima Wood
5	Kentucky	Mark Thompson
6	Louisiana	Marianne Covington
7	Missouri	Eve Campbell
8	North Carolina	Vira Hogan
9	Oklahoma	Jake Smith
10	Tennessee	Sheila White
11	West Virginia	Debbie Anderson

## Appendix 4 – Private Sector Companies Surveyed by The HayGroup

175 Companies Included in Hay Paynet IT Matches				
COMPANY	INDUSTRY	OWNERSHIP	SIZE	NUMEMPS
AEGON	Insurance - Life/Accident (Financial)	Foreign Ownership	10 Billion or More	10001 - 25000 Employees
AGL Resources	Utilities (Services)	Domestic U.S. Ownership	2.5 to 5 Billion	2501 - 5000 Employees
Alabama Electric Cooperative	Utilities (Services)	Domestic U.S. Ownership	250 to 499 Million	501 - 1000 Employees
Alamance Regional Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
Alex Lee	Retailers (Services)	Domestic U.S. Ownership	2.5 to 5 Billion	10001 - 25000 Employees
Alfa Insurance	Insurance - Property and Casualty (Financial)	Domestic U.S. Ownership	500 to 999 Million	2501 - 5000 Employees
American Century Investments	Other Financial Services (Financial)	Domestic U.S. Ownership	500 to 999 Million	1001 - 2500 Employees
American Century Investments	Other Financial Services (Financial)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
American International Group	Insurance - Life/Accident (Financial)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
American Legion Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	Less than 50 Million	251 - 500 Employees
Amerigroup	Insurance - Health Ins Provider - For Profit (Financial)	Domestic U.S. Ownership	2.5 to 5 Billion	2501 - 5000 Employees
Amsted Industries – ASF-Keystone	Metals/Mining (Industrial/Manufacturing)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
Anheuser-Busch	Food, Beverage & Tobacco (Industrial/Manufacturing)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Arch Chemicals	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	2501 - 5000 Employees
Arkansas Blue Cross and Blue Shield	Insurance - Health Ins Provider - Not For Profit (Financial)	Domestic U.S. Ownership	500 to 999 Million	2501 - 5000 Employees
Assurant – Assurant Health	Insurance - Health Ins Provider - For Profit (Financial)	Domestic U.S. Ownership	1 to 2.49 Billion	2501 - 5000 Employees
AutoZone	Retailers (Services)	Domestic U.S. Ownership	5 to 9.9 Billion	25001 or More Employees
B. E. Aerospace	Heavy Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	500 to 999 Million	2501 - 5000 Employees
Bacardi Limited -- Bacardi	Food, Beverage & Tobacco (Industrial/Manufacturing)	Foreign Ownership	1 to 2.49 Billion	251 - 500 Employees
Baptist Hospital of East Tennessee	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
BASF	Chemical (Industrial/Manufacturing)	Foreign Ownership	10 Billion or More	5001 - 10000 Employees
BBA Fiberweb America	Light Manufacturing (Industrial/Manufacturing)	Foreign Ownership	500 to 999 Million	1001 - 2500 Employees
Belden CDT	Light Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	5001 - 10000 Employees
BellSouth	Business/Professional Services (Services)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Blue Cross and Blue Shield of Florida	Insurance - Health Ins Provider - Not For Profit (Financial)	Domestic U.S. Ownership	5 to 9.9 Billion	5001 - 10000 Employees
Blue Cross and Blue Shield of Kansas City, MO	Insurance - Health Ins Provider - Not For Profit (Financial)	Domestic U.S. Ownership	1 to 2.49 Billion	1001 - 2500 Employees
Blue Cross Blue Shield of North Carolina	Insurance - Health Ins Provider - Not For Profit (Financial)	Domestic U.S. Ownership	2.5 to 5 Billion	2501 - 5000 Employees
Blue Cross Blue Shield of South Carolina	Insurance - Health Ins Provider - For Profit (Financial)	Domestic U.S. Ownership	2.5 to 5 Billion	10001 - 25000 Employees

Bon Secours – Saint Mary's Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	500 to 999 Million	1001 - 2500 Employees
BP America	Petroleum and Petroleum Services (Industrial/Manufacturing)	Foreign Ownership	5 to 9.9 Billion	25001 or More Employees
Bridgestone -- Bridgestone Americas Holding	Heavy Manufacturing (Industrial/Manufacturing)	Foreign Ownership	5 to 9.9 Billion	25001 or More Employees
Brim Healthcare -- Jupiter Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
Brooks Health System	Integrated Healthcare Systems (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
Brooks Health System	Hospitals (Public Sector)	Domestic U.S. Ownership	50 to 99 Million	501 - 1000 Employees
Camden-Clark Memorial Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
Carolina Care Plan	Insurance - Health Ins Provider - For Profit (Financial)	Domestic U.S. Ownership	100 to 249 Million	0 - 250 Employees
Carter's	Retailers (Services)	Domestic U.S. Ownership	1 to 2.49 Billion	5001 - 10000 Employees
Caterpillar	Heavy Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Catholic Healthcare West – Carilion Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	500 to 999 Million	5001 - 10000 Employees
Centene	Insurance - Health Ins Provider - For Profit (Financial)	Domestic U.S. Ownership	1 to 2.49 Billion	1001 - 2500 Employees
CenterPoint Energy	Utilities (Services)	Domestic U.S. Ownership	5 to 9.9 Billion	5001 - 10000 Employees
Centra Health	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
Central Georgia Health System	Hospitals (Public Sector)	Domestic U.S. Ownership	500 to 999 Million	2501 - 5000 Employees
Chep USA	Light Manufacturing (Industrial/Manufacturing)	Foreign Ownership	500 to 999 Million	501 - 1000 Employees
Children's Health System	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
CHILDREN'S HOSPITAL	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
Ciba Specialty Chemicals	Chemical (Industrial/Manufacturing)	Foreign Ownership	1 to 2.49 Billion	2501 - 5000 Employees
Clariant	Chemical (Industrial/Manufacturing)	Foreign Ownership	1 to 2.49 Billion	2501 - 5000 Employees
Cleveland Clinic Florida - Naples	Hospitals (Public Sector)	Domestic U.S. Ownership	50 to 99 Million	251 - 500 Employees
Coffee Health Group	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	501 - 1000 Employees
Coffee Health Group	Integrated Healthcare Systems (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	501 - 1000 Employees
ConAgra Foods	Food, Beverage & Tobacco (Industrial/Manufacturing)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Cooper Industries	Light Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	2.5 to 5 Billion	25001 or More Employees
Coventry Health Care	Insurance - Health Ins Provider - For Profit (Financial)	Domestic U.S. Ownership	5 to 9.9 Billion	5001 - 10000 Employees
COX HEALTH	Hospitals (Public Sector)	Domestic U.S. Ownership	500 to 999 Million	5001 - 10000 Employees
Deere	Heavy Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Dollar General	Retailers (Services)	Domestic U.S. Ownership	5 to 9.9 Billion	25001 or More Employees

Dominion Resources	Utilities (Services)	Domestic U.S. Ownership	10 Billion or More	10001 - 25000 Employees
Duke University Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	2.5 to 5 Billion	5001 - 10000 Employees
E. I. du Pont de Nemours -- Pioneer Hi-Bred International	Business/Professional Services (Services)	Domestic U.S. Ownership	2.5 to 5 Billion	5001 - 10000 Employees
Eastman Chemical	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	5 to 9.9 Billion	10001 - 25000 Employees
Edward Jones	Other Financial Services (Financial)	Domestic U.S. Ownership	2.5 to 5 Billion	2501 - 5000 Employees
ElectriCities of North Carolina	Utilities (Services)	Domestic U.S. Ownership	Less than 50 Million	0 - 250 Employees
EMD Chemicals	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	250 to 499 Million	501 - 1000 Employees
Ernie Green Industries -- Florida Production Engineering	Heavy Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	100 to 249 Million	501 - 1000 Employees
Falconbridge Limited -Noranda Limited USA	Metals/Mining (Industrial/Manufacturing)	Foreign Ownership	500 to 999 Million	501 - 1000 Employees
Federal Reserve Bank of Atlanta	Other Financial Services (Financial)	Domestic U.S. Ownership	1 to 2.49 Billion	2501 - 5000 Employees
Federal Reserve Bank of St. Louis	Other Financial Services (Financial)	Domestic U.S. Ownership	500 to 999 Million	1001 - 2500 Employees
FedEx	Transportation (Services)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
FMC	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	2501 - 5000 Employees
Forrest General Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
FPL Group -- Florida Power & Light	Utilities (Services)	Domestic U.S. Ownership	10 Billion or More	10001 - 25000 Employees
Georgia Gulf	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	1001 - 2500 Employees
Halifax Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
Hallmark Cards	Consumer Products excl. Food & Beverage (Industrial/Mfg.)	Domestic U.S. Ownership	2.5 to 5 Billion	5001 - 10000 Employees
Hartford Insurance	Insurance - Life/Accident (Financial)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
HCA Healthcare -- John F. Kennedy Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
HCA Healthcare -- John F. Kennedy Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
Heartland Regional Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
Helzberg Diamonds	Retailers (Services)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
High Point Regional Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
Hilti -- U.S.	Heavy Manufacturing (Industrial/Manufacturing)	Foreign Ownership	500 to 999 Million	2501 - 5000 Employees
Home Depot	Retailers (Services)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Huntsville Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	500 to 999 Million	2501 - 5000 Employees
Ingersoll - Rand	Heavy Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Institute of Nuclear Power Operations	Business/Professional Services (Services)	Domestic U.S. Ownership	50 to 99 Million	251 - 500 Employees
INVISTA	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	10001 - 25000 Employees

John H. Harland	Business/Professional Services (Services)	Domestic U.S. Ownership	500 to 999 Million	5001 - 10000 Employees
John H. Harland Company -- Harland Printed Products	Business/Professional Services (Services)	Domestic U.S. Ownership	500 to 999 Million	2501 - 5000 Employees
Kansas City Life Insurance	Insurance - Life/Accident (Financial)	Domestic U.S. Ownership	250 to 499 Million	501 - 1000 Employees
Lexington Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
LifeWay Christian Resources	Business/Professional Services (Services)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
Louisiana Pigment	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	50 to 99 Million	251 - 500 Employees
Louisiana Workers' Compensation	Insurance - Property and Casualty (Financial)	Domestic U.S. Ownership	250 to 499 Million	251 - 500 Employees
Lowe's	Retailers (Services)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Lucite International	Chemical (Industrial/Manufacturing)	Foreign Ownership	500 to 999 Million	501 - 1000 Employees
Maritrans	Transportation (Services)	Domestic U.S. Ownership	100 to 249 Million	251 - 500 Employees
Mary Washington Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
McLeod Regional Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
MeadWestvaco -- Consumer Solutions	Light Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	2501 - 5000 Employees
MeadWestvaco -- Corporate	Light Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	5 to 9.9 Billion	10001 - 25000 Employees
MeadWestvaco -- Packaging & Paperboard	Light Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	2501 - 5000 Employees
Medical College of Georgia Health System	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
MedPlans Partners	Insurance - Health Ins Provider - For Profit (Financial)	Domestic U.S. Ownership	Less than 50 Million	0 - 250 Employees
Memorial Health University Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
Methodist Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	501 - 1000 Employees
MetLife	Insurance - Life/Accident (Financial)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Michelin North America	Heavy Manufacturing (Industrial/Manufacturing)	Foreign Ownership	5 to 9.9 Billion	10001 - 25000 Employees
Mid-Carolina Electric Cooperative	Utilities (Services)	Domestic U.S. Ownership	50 to 99 Million	0 - 250 Employees
Mittal Steel	Metals/Mining (Industrial/Manufacturing)	Foreign Ownership	10 Billion or More	10001 - 25000 Employees
Monongalia General Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	501 - 1000 Employees
Mosaic	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	2.5 to 5 Billion	5001 - 10000 Employees
Mutual of America	Insurance - Life/Accident (Financial)	Domestic U.S. Ownership	1 to 2.49 Billion	1001 - 2500 Employees
NACCO Materials Handling	Heavy Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	2.5 to 5 Billion	5001 - 10000 Employees
NCCI Holdings	Insurance - Other (Financial)	Domestic U.S. Ownership	100 to 249 Million	501 - 1000 Employees
New Hanover Regional Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	500 to 999 Million	2501 - 5000 Employees
Newark InOne	Light Manufacturing (Industrial/Manufacturing)	Foreign Ownership	500 to 999 Million	1001 - 2500 Employees

NewMarket	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	1001 - 2500 Employees
Norman Regional Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
North Carolina Baptist Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	500 to 999 Million	5001 - 10000 Employees
Northeast Georgia Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	500 to 999 Million	2501 - 5000 Employees
Norton Healthcare	Hospitals (Public Sector)	Domestic U.S. Ownership	1 to 2.49 Billion	Undefined
Occidental Petroleum -- Occident Chemical	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	2.5 to 5 Billion	2501 - 5000 Employees
Ochsner Clinic Foundation	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	Undefined
Office Depot	Retailers (Services)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Oklahoma Heart Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	Undefined	501 - 1000 Employees
Our Lady of the Lake Regional Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
Phelps County Regional Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	501 - 1000 Employees
Piedmont Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
Pikeville Medical Center, Inc.	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
PPG Industries	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
PPG Industries -- Chemicals	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	2501 - 5000 Employees
PPG Industries -- Coatings & Resins	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	5 to 9.9 Billion	10001 - 25000 Employees
PPG Industries -- Glass	Light Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	5001 - 10000 Employees
PPG Industries -- Transitions Optical	Metals/Mining (Industrial/Manufacturing)	Domestic U.S. Ownership	250 to 499 Million	251 - 500 Employees
Premier	Wholesalers (Services)	Domestic U.S. Ownership	250 to 499 Million	501 - 1000 Employees
Project HOPE	Public Services (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	0 - 250 Employees
Public Works Commission of Fayetteville, North Carolina	Utilities (Services)	Domestic U.S. Ownership	100 to 249 Million	501 - 1000 Employees
Ridgeview Institute	Hospitals (Public Sector)	Domestic U.S. Ownership	Less than 50 Million	251 - 500 Employees
Rockingham Memorial Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
Saint Joseph's Health System - - Hospital of Atlanta	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
Saint Jude's Children's Research Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	50 to 99 Million	251 - 500 Employees
Saint Mary's Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
Saint Mary's Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
Saint Mary's Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
Saint Tammany Parish Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees
Saint-Gobain -- Calmar	Light Manufacturing (Industrial/Manufacturing)	Foreign Ownership	100 to 249 Million	501 - 1000 Employees



Saint-Gobain -- Ceramics	Chemical (Industrial/Manufacturing)	Foreign Ownership	1 to 2.49 Billion	5001 - 10000 Employees
Sarasota Memorial Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
Satilla Regional Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	501 - 1000 Employees
Shands HealthCare	Hospitals (Public Sector)	Domestic U.S. Ownership	500 to 999 Million	2501 - 5000 Employees
Shelter Insurance	Insurance - Property and Casualty (Financial)	Domestic U.S. Ownership	500 to 999 Million	2501 - 5000 Employees
Solvay America -- Solvay Pharmaceuticals	Pharmaceutical (Industrial/Manufacturing)	Foreign Ownership	500 to 999 Million	1001 - 2500 Employees
Solvay America -- Solvay Pharmaceuticals	Pharmaceutical (Industrial/Manufacturing)	Foreign Ownership	500 to 999 Million	1001 - 2500 Employees
Sonnenschein Nath & Rosenthal	Business/Professional Services (Services)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
Southern Union -- Missouri Gas Energy	Utilities (Services)	Domestic U.S. Ownership	500 to 999 Million	501 - 1000 Employees
Springs Industries	Light Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	2.5 to 5 Billion	10001 - 25000 Employees
Stage Stores -- Peebles	Retailers (Services)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
SuperValu	Retailers (Services)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Syntroleum Corporation	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	Less than 50 Million	0 - 250 Employees
T.D. Williamson	Heavy Manufacturing (Industrial/Manufacturing)	Domestic U.S. Ownership	100 to 249 Million	501 - 1000 Employees
Texas Gas Transmission	Utilities (Services)	Domestic U.S. Ownership	250 to 499 Million	501 - 1000 Employees
Tronox	Chemical (Industrial/Manufacturing)	Domestic U.S. Ownership	1 to 2.49 Billion	1001 - 2500 Employees
Tyson Foods	Food, Beverage & Tobacco (Industrial/Manufacturing)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Union Pacific	Transportation (Services)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
Unisource Worldwide	Wholesalers (Services)	Domestic U.S. Ownership	5 to 9.9 Billion	5001 - 10000 Employees
United Space Alliance	Business/Professional Services (Services)	Domestic U.S. Ownership	1 to 2.49 Billion	10001 - 25000 Employees
United States Steel	Metals/Mining (Industrial/Manufacturing)	Domestic U.S. Ownership	10 Billion or More	25001 or More Employees
University of Tennessee Memorial Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	250 to 499 Million	2501 - 5000 Employees
University of Virginia Medical Center	Hospitals (Public Sector)	Domestic U.S. Ownership	500 to 999 Million	5001 - 10000 Employees
Wackenhut Services	Business/Professional Services (Services)	Foreign Ownership	100 to 249 Million	501 - 1000 Employees
Wal-Mart Stores	Retailers (Services)	Domestic U.S. Ownership	10 Billion or More	Undefined
William L. Bonnell	Metals/Mining (Industrial/Manufacturing)	Domestic U.S. Ownership	250 to 499 Million	1001 - 2500 Employees
Winterthur North America	Insurance - Property and Casualty (Financial)	Foreign Ownership	1 to 2.49 Billion	1001 - 2500 Employees
Woman's Hospital	Hospitals (Public Sector)	Domestic U.S. Ownership	100 to 249 Million	1001 - 2500 Employees

